THE VETERINARY RECORD

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The Profession and the Board.

The unexpected change of Ministry has been detrimental to the claims of the veterinary profession against the Board of Agriculture. The change may be ultimately beneficial bnt its immediate effect is to delay the opportunity of a settlement. If Mr. Herbert Gardner had remained President of the Board we should have had a strong case to present to Parliament when the Civil Service estimates were under consideration. A new President brings with him an element of uncertainty. He may say—"I am not responsible, I know nothing about it, and the permanent officials tell me the present arrangements work very well. I will look into the matter." He may say—"I will enquire into the matter and redress any wrong perpetrated by my predecessor." His answer will depend entirely upon the amount of pressure we can bring to bear upon him through Members of Parliament. Our Parliamentary weight will be entirely in proportion to the use we make of our influence as electors and our position as intelligent professional men. This is no small affair that practitioners can afford to neglect. We have been shamefully ill-treated. Our twenty-eight years of active and successful direction of the work of suppressing contagious diseases amongst animals has been rewarded by deleting the "Veterinary" from the departments of the State, by reducing the number of veterinary officers, by giving them an inferior position to that hitherto held, and by advancing lay officers over our heads.

If we suffer these indignities in silence, or permit them to pass without such a protest as will awaken Parliament to the negligence and nepotism which still pervades government offices, we shall be pushed back a generation in our social progress. Local authorities will measure us with the standard assumed by the Board of Agriculture. Stock-owners too will note the value put upon us, and the injury will affect the smallest practitioner in the most remote village. We must all work with a will for the next few weeks. Politics need not prevent each of us doing our best. All of us are electors, and a general election affords a splendid opportunity for bringing our grievance to the notice of candidates for parliament. Whichever political party we may belong to need not affect our action. We have only as electors to ask each candidate to help us—to afford us common justice.

Something less than thirty members of the present parliament have promised to assist our claim when the question comes up on the estimates. This is not enough. We must have at least a hundred, and every practitioner can help by a letter to his local representative. As soon as it is known who are the candidates in each constituency, application should be made for a hearing. Our case is such a strong one that it only wants stating to ensure attention from any unbiased person.

To combine our efforts in one united action it is necessary that the names of Members favourable to our cause should be known at head-quarters. The Secretary at 10 Red Lion Square, W.C. should be advised of every fresh addition to our parliamentary friends. The Council can then act with precision and effect.

Hereditary Unsoundness.

By the courtesy of the editor of *The North British Agriculturist* we have received advance proofs of a lecture delivered by Professor McCall at Darlington. The lecture was given to the members of the South Durham and North Yorkshire Veterinary Society, but a more than usually appreciative audience was obtained by the attendance of prominent agriculturists who were attracted to the town by "The Royal" show.

The importance of the subject is vastly enhanced by the authoritative position of the lecturer and by the wider sphere influenced owing to his mixed audience. The soundness of the teaching is therefore a matter of great importance to the profession. It is with diffidence we offer any objections to Professor McCall's arguments, because he is not only a leading scientific authority but a practical breeder of large experience. Any deductions from facts which Professor McCall may offer must be received with attention, but when his deductions are made from the assertions and theories of other authorities we may decline to accept them unless in accordance with our own observations.

"Splints" and "spavins" are the special unsoundnesses the lecturer takes as illustrating his objections to the accepted notions of hereditary disease. The professor looks upon 'splints' and 'spavins' as acquired diseases, "having no existence at birth" and infers that if these are hereditary "then all acquired diseases are hereditary," and that bony growths, caries and ulcerative disease of joints are equally hereditary. This position he supports by quoting Weismann's theory that no acquired variations are hereditary. It is well to remember that Weismann has not yet proved his point, and that the function of germ plasm or germ cells is as yet merely an hypothesis. Again, we cannot grant that because a disease is not evident at birth or shortly after birth it may be classed as *acquired*. There is surely evidence that "splints and spavins" are hereditary—that they appear in the offspring of parents so affected with great regularity, and under all sorts of conditions which place accident as a cause quite out of the question. If daily observation shows the transmission of certain variations of structure from parent to offspring it is not enough to say that they are acquired, and therefore cannot be hereditary. The first thing necessary is to show that they are not transmitted, and in this we think the weight of evidence is against the professor.

Whether it is right to reject stallions or mares that possess a "splint" because it is hereditary, is another question. Splint may be hereditary and yet of such slight practical importance as to make it a cause of rejection only to the pedant and theorist. A list of hereditary diseases is not necessarily a list of conditions demanding rejection of all affected animals for breeding purposes. The gravity of the disease as well as its nature have to be considered before this additional point can be admitted as an argument.

CASES AND ARTICLES.

PRACTICE *v.* THEORY.

A Veterinary Sketch.

Mr. A—— is puzzled what to do with his son, who has now arrived from school and is of an age that it is absolutely necessary to arrange for his future career in life. The youth has been reared in town, and has received a liberal education, but as yet has not developed any special desire for either medicine, law, or the church. He is fond of horses and has picked up a bit of racing knowledge from some sporting companions, and happening to meet a veterinary surgeon in good practice, while on a visit to a neighbouring city, he is struck with the idea that the life is a pleasant and easy one, and makes up his mind to adopt this profession.

On informing his father, however, of the choice, this worthy is not at all pleased, and would much prefer one of the "learned professions" for the "hope of the family." However he consults one of his friends who happens to be a common sense country gentleman and extensive farmer; the latter explains to him the difficulties which the son must face before he can hope to succeed as a veterinary surgeon, and advises that the youth be placed as a pupil with Mr. D——, a veterinary surgeon in a large mixed practice, in order to judge of his fitness for the profession, and also to instruct him in the necessary practical details of every day work.

But Mr. A—— happens to meet with another friend who knows nothing of the requirements of the profession, this gentlemen says "Don't mind pupilage, send your son to College, where he will be instructed in a scientific manner, these veterinary surgeons as a rule are very unscientific fellows, and cannot teach him." The latter advice is followed, and Mr. A——, Jun., duly passes the matriculation examination and joins the various classes at the College of his adoption. He is steady and works hard, passes with distinction, listens to his lecturers with great attention, and is early struck with the idea that the practice of his profession will be a very easy matter. His mind readily takes in the value of scientific studies, so he is an adept at the microscope and well up in bacteriology.

He listens with marked attention to the good advice given from the professorial chair on all matters in connection with his future career. He is told the value of hygiene and sanitary science, the baneful effects of prescribing large quantities of medicines for the patients, the evils of empiricism, the meddlesome interference of grooms and coachmen, and the manner in which he should regard them, the ignorance of herdsmen and stewards, etc.

It is also impressed on him the enormous strides the profession has made, and how scientific it has become in comparison with the past. Mr. A——, Jun., becomes quite happy, and consoles himself with the thought that when he starts in practice in a certain district he will be able to "knock out" a certain V.S. who although well established does not conform to the lofty ideas which Mr. A—— now entertains with reference to the profession.

The lectures on "Cattle Pathology" Mr. A—— considers rather a nuisance, but still they must be gone through. Obstetrics seems easy enough as he watches the Professor point out on diagrams various presentations and how they are to be overcome and delivery effected. Then the "resident cow" in the College gives ample opportunity for practical demonstration of what he will require to perform in his future career.

He answers the questions of "how to do this and how to do that" with alacrity, and is complimented by his professor, and receives a medal. After attending the College practice and lectures for the prescribed time he duly passes his final, and is certified fully qualified to practice the Art and Science of Veterinary Surgery and Medicine.

He then repairs to the district in which he has determined to practice, not forgetting to bring his microscope and a set of the most approved instruments etc.

Mr. A—— is imbued with his vast importance as a professional man. Of course it is *infra-dig* to keep a forge, or even to dispense medicines, for the latter he will send his clients with prescriptions to the chemists. He must be careful not to associate with grooms or horse dealers, these must be kept in their proper place, and so must stewards and herdsmen. Again, he must not advertise, but of course he may leave his card on all the residents, and may have a brass-plate on his door. For the first week nothing turns up, with the exceptlon of some trivial affections in some of his friends' horses, which he is honest enough to inform them will come right by the *vis medicatrix naturæ*.

Then a horse comes to be examined as to soundness, the property of a local dealer. Now Mr. A—— had seen plenty of horses examined at College, and it seemed an easy matter. One look at the eyes, "a slight turn of the wrist" over the horse's limbs, a look at the mouth, a run up and down in the College Square, a slight gallop on the ride, and an inspection of the feet, and all is complete. The dealer modestly informs him that he is in a terrible hurry to go away in order to ship some horses, and asks him to be as quick as possible. The examination is soon finished, and our V.S. having tried the horse's feet for corns with his searcher, can detect nothing wrong, so he writes the certificate, the dealer is pleased, the client's groom calls for horse and certificate, and of course is treated with dignity by our friend.

Next morning the horse is brought back by the client with the sad story that the animal went lame of a fore leg when driven, and on being taken to the forge to get the shoe removed, there was a deep-seated corn in the foot.

Mr. A—— is greatly surprised, as he thought that his examination was perfect. Fortunately for him the client was a personal friend of his father's and takes the matter quietly, disposing of the horse for a small figure. But Mr. A—— was not yet aware that many dealer's horses are "done up" for sale, that it was necssary in order to detect hidden lameness to rest the horse for a proper period and see him

move again before giving an opinion, and also that he should have the shoes removed in order to detect corns, which are purposely hidden by the shoes at the instigation of the owner.

New troubles now come upon him. One horse that he was positive was lame in the shoulder, has broken out at the coronet, as the animal had been pricked in the shoeing. But strange to say he had the shoe taken off by the smith and nothing was found wrong. Of course he forgot that it was this smith "pricked the horse" and so did his best to conceal the fact.

Another horse which he had blistered for shoulder lamensss, got no better, and he was disgusted to find that his client had taken the animal to the experienced but unscientific practitioner, who quickly detected a small splint forming below the knee.

Another case was brought to him showing symptoms of weakness of the hind extremities; this he treated for spinal disease, but there is no improvement, and the neighbouring V.S. being called in finds it a well-developed case of influenza, accompanied with high temperature.

The grooms dislike Mr. A—— so they lead him astray on every possible occasion, even to the extent of putting a bandage on the sound leg of a lame patient. He has no business tact, but stands on his dignity and tries to emulate his professors at College. In vain he complains of the groom's conduct to the employers, and is never tired of finding fault with the management of the stable and the want of cleanliness displayed therein. He endeavours to give all instructions to the owner and ignore the groom, and much prefers the drawing-room surroundings to those of the stable. But in spite of all his scientific attainments his cases do not seem to recover in anything like the manner which his predecessor used to pull them through. His clients soon percieve this and one by one depart. Even his social attainments will not enable him to make a practice and keep it.

But having to work a mixed practice his worst difficulty was with cattle. He was called at night to attend a valuable cow in labour, belonging to a wealthy gentleman farmer. Having never even explored these regions he was naturally a little doubtful on arrival; however his first thought was to adopt rigid antiseptic precautions, so he makes up a 1 to 1000 hyd. perchlorid solution for his hands. Then he inserts his hand and arm and valiantly goes to work but finds he is quite "at sea." After several vain endeavours and many guesses as to the presentation, he finally gives it up as a bad job, and informs the owner of the hopeless nature of the case, and takes his departure, after ordering the cow to be destroyed.

But next morning he awakes with his arm in a semi-paralysed condition, and finds his suit of clothes worthless from the previous night's work. On going out he is horrified to be told that a handy neighbour was called to the cow last night and delivered the calf without much trouble and the mother is all right.

Other unpleasant occurrences take place in his attempts at cattle practice, and he quickly learns that this branch of the profession requires special study not obtainable at College. He finds that the owners of cattle do not appreciate his scientific attainments, and make light of his bacteriological knowledge.

But when spring comes, fresh troubles are in store. He is asked to attend to a farm and castrate a number of colts. Now at College he saw this operation performed, and it certainly seemed easy enough, but he never yet even operated on a donkey; and he received a still further demonstration of the fact that it is one thing to see a thing done, and another thing to do it himself. Needless to say the first trouble was the casting and securing of the colt that probably was never handled before. After many vain attempts he manages somehow, with the aid of a friendly attendant to complete the job, but not before he has shown to the on-lookers how little he knows about the work. Tired and disgusted he tells the owner to handle the remaining colts and that he will call again, but is surprised to hear in a few days that a travelling gelder came the way and castrated the lot.

Mr. A—— has now learned the difference between theory and practice, and taking the advice of his friends he gives up the idea of practising on his own account for the present, but goes as assistant in a large mixed practice for a proper period, and afterwards makes a successful veterinary surgeon.

The above sketch is fiction to many, but it contains a deal that is true in point of fact. The necessity for practical education is greater in the present day than ever, and the new regulations and four years course will not obviate it. It is absolutely essential that every student should spend a proper period with a veterinary surgeon in a mixed practice in order to obtain knowledge that he cannot acquire otherwise. It is all very well to talk about scientific education and its advantages, but this must be applied to actual work, otherwise the newly-fledged practitioner is in much the same position to earn his living as a graduate in arts of a university.

Actual observation, clinical experience, and tact can only be acquired by daily work in a practice, and he who declares that these can be obtained otherwise is, to put it mildly, a rigid economist of truth.

"Observer."

UNSOUNDNESS IN HORSES.

By Professor McCall.

Read before the South Durham and North Yorkshire Veterinary Medical Association, at Darlington, on June 25th.

My object in appearing before you this evening is to offer a few remarks upon some of those diseases which are at the present time held to disqualify stallions as breeding sires.

Some years ago a communication was addressed to the Council of the Royal College of Veterinary Surgeons by the Royal Commission on Horse Breeding, requesting them to place on record the names of those diseases affecting horses which by heredity rendered stallions so affected unfit as breeding sires. The diseases so scheduled were—splints, spavins, ringbones, sidebones, diseased feet, laminitis, navicular arthritis, roaring.

This is, you observe, a formidable list; as must be evident to every one familiar with the diseases which

affect the horse, but if it is a *reliable* record of hereditary affections, it can be very largely added to. In fact, I think it would be tantamount to saying that all diseases (especially those connected with locomotion) are hereditary—a doctrine I am not prepared to preach.

Take, for example, the disease of 'splints.' If it be the product of heredity, that is, a physical defect transmitted from the parents to their offspring, then all bony growths, in my opinion, are bound to be similarly classified. Not only so, but as splint is an acquired disease, having no existence at birth, all acquired disease in whatever way, and affecting whatever structures, is hereditary. I don't think many of my professional brethren will subscribe to that doctrine.

Again, if occult spavin be a hereditary disease, then caries or ulcerative disease of any kind of all joints, is equally a hereditary affection; and do not forget to add, if hereditary in the horse, it must be so in all animals, not excluding the human family.

To explain what heredity is, and the phenomenon on which it depends, or rather, I should say, is supposed to depend and is associated with, volumes, as you know, have been written; but for one fact known and proved two remain unknown and unproved, and, moreover, that which to our mind proves the hereditary influence, to another obscures the issue. As a proof of this, I shall quote a few sentences from Professor Weismann's work *The Germ Plasm: a Theory of Heredity.* In the preface to the work he states: 'What first struck me when I began seriously to consider the problem of heredity, some ten years ago, was the necessity for assuming the existence of a specially organised and living *hereditary substance*, which in all multicellular organisms, unlike the substance composing the perishable body of the individual, is transmitted from generation to generation. This is the theory of *the continuity of the germ plasm.* My conclusion led me to doubt the usually accepted view of the *transmission of variations acquired* by the body (soma); and further research, combined with experiments, tends more and more to strengthen my conviction that, in point of fact, no such transmission occurs.

All my investigations on the problem of heredity were, so far, only links, to be some day united into a chain which has yet had no existence. The question of the ultimate elements on which to base the theory was the very point on which I remained longest in doubt. The 'pangenesis' of Darwin seemed to me to be far too independent of facts, and even now I am of opinion that the very hypothesis from which it derives its name is untenable. There is now scarcely any doubt that the entire conception of the production of the 'gemmules' by the body cells, their separation from the latter, and their 'circulation,' is in reality wholly imaginary. In this regard I am still quite as much opposed to Darwin's view as formerly, for I believe that all parts of the body do not contribute to produce a germ from which the new individual arises; but that, on the contrary, the offspring owes its origin to a peculiar substance of extremely complicated structure, viz. the germ plasm. This substance can never be formed anew; it can only grow, multiply, and be transmitted from one generation to another. My theory might therefore well be denominated 'plastogenesis,' or origin from a germ plasm, in contradistinction to Darwin's theory of 'pangenesis,' or origin from all parts of the body."

At page 395 Professor Weismann further states: 'At the present day I can therefore state my conviction still more decidedly than formerly, that *all permanent, i.e. hereditary variations of the body, proceed from primary modifications of the primary constituents of the germ;* and that neither *injuries*, functional hypertrophy and atrophy, structural variations due to the effect of temperature or nutrition, *nor any other influence of environment on the body*, can be communicated to the germ cells, and so become transmissible."

But to return and bring our subject to a focus regarding heredity, it may be alleged that there are at least two parties who wage a war against each other. The first party, or those who implicitly believe in the transmission of disease by every form and from whatever cause, and the second party, who believe in neither, or at most, the inheritance of a predisposition to disease, but not the disease itself. Speaking for myself, I have implicit faith or belief in the hereditary transmission of conformation, physical and mental, and of nervous affections; but only to a limited extent do I believe in the transmission of acquired diseases. Acquired diseases are, I believe, largely, if not solely, the result of the forces acting on the body; or, more technically expressed, the result of environments.

My object in ventilating the subject of heredity as a factor in the production of disease is not so much to find fault with what has been done, or to review current opinions thereon, as to endeavour to bring about a more enlightened policy for the future, with possibly as good practical results in the breeding of animals without defects. Having in view such a programme, I shall now put before you a few hypothetical cases. We assume that the Royal Commission on Horse-Breeding have appointed three eminent veterinarians to adjudicate on the stallions competing for their premiums. Mr. A., known as a firm believer in the heredity of disease; Mr. B., a pronounced non-believer in the heredity of disease; Mr. C., a staunch advocate of the heredity of conformation and the force of environments in the prevention or production of locomotory diseases.

Two stallions enter the ring and each has a fully developed splint, but of course, going sound, and in other respects they are pronounced sound. What is the result of the examination? Mr. A., true to his belief in the heredity of disease, and without compunction, rejects both animals as breeding sires. Mr. B., wedded to environments in the production of splint, and not heredity, passes both animals as breeding sires. Mr. C., strong on conformation, and finding stallion No. 1 sound on his four limbs and otherwise to his mind, passes him as a breeding sire, but observing that No. 2 stallion is 'lady toed,' or otherwise from mal-position brushes or hits the splint, rejects the horse as a breeding sire—but, observe, not because he has splint disease. In this way we have discord, a want of unanimity in the professional award, and, of course, marked dissatisfaction in the ranks of the exhibitors.

No doubt some here will say that all this can be avoided by condemning as unfit for breeding purposes all horses having a splint. But might I not, in reply, say, reject no horse with a splint going sound, and whose conformation of limbs are good and his action straight, and reject all horses with splints who fail to comply with these, to my mind, indispensable requirements.

And now comes the question, Is 'splint' an hereditary disease? Is there in the drop of semen, with which this stallion impregnates this mare, and all other mares, the lines, the 'ids' of splint disease, and if so is it an imperative procedure to reject every male or female animal which has a 'splint'? Such is not my belief. A splint is a subperiosteal growth of bone. It is formed by the same process as naturally thickens the shell of the growing bone. It can be produced at will by a blow, which may be self inflicted by a kick, by concussion, and in a variety of ways. It can in the early stages of its growth be removed by agents which act as absorbents; and when once consolidated, if the limbs be properly formed, and do not hit each other in rapid motion, it is of no consequence.

That a stallion or mare having a splint when put to the stud should have progeny with splints, even early after

their birth, which is not the rule, is to my mind no proof of their hereditary transmission, for the galloping and knocking about which young horses give themselves is sufficient to explain the frequency with which 'knobs' of bone make their appearance. Moreover, the very fact that these knobs, as a rule, are only formed on the inside of the limb, under the centre of greatest weight, only during the period of growth of the bone, and become smaller as age advances, proves their local, and not hereditary, origin.

That conformation, physical and mental, are hereditary no one can doubt, and breeders and veterinarians should keep this great fact prominently before them. Further, that conformation predisposes to disease is equally undeniable. Put a stallion with a curby conformation of hocks to a mare having a similar conformation, and the offspring will have pronounced curby formed hocks, and when put to work the disease curb. Now, curb, as curb, is not hereditary, and a curb on a well-formed hock is practically of small consequence. A stallion with a curb on a well-formed hock, or a mare with a curb on a well-formed hock, will not throw their offspring with curbs or curby-formed hocks. Now I ask, if such be the facts, which the practice of breeding demonstrates to be the case, why should a stallion with a 'curb' or a 'splint' be disqualified on the grounds of heredity as a breeding horse or sire?

We shall now turn our attention to the diseased condition termed spavin. It is generally admitted that there are two distinct forms of spavin. One, and by far the more frequent, in which the bony growth is subperiosteal and superficial, and in all respects similar to a splint, the other in which the articular cartilage of the joint becomes carious or ulcerates. In the first form of the affection, the lameness with which it is associated in its growth disappears as the growth becomes consolidated. In the second form of the malady, the animal is lame from the first, and continues so, at all events, until the layer of cartilage is removed and the bones joined by obliteration of the joint.

Before a Court similarly constituted, as I have already explained, we again submit two stallions, each in possession of a typical bone spavin. Mr. A, a firm believer in heredity of bone spavin, rejects both animals as breeding sires. Mr. B, wedded to environments in the production of spavins, and not heredity, passes both animals as sires. Mr. C, finding the first stallion to have a strong broad conformation of hocks, and the most perfect power of flexion and extension of these joints, passes him as a breeding sire; but observing that his neighbour stallion has narrow hocks and a want of power to freely flex and extend them, and consequently an inclination to drag his toes, he is rejected. Here, again, we have discord, but I think Mr. C has the best of it.

Bone spavin, as every one knows, renders a horse legally unsound, and in that decision I acquiesce, but I do not concur with those who hold the opinion that a bone spavin necessarily affects a horse's usefulness, and in time will lame him. If it be a subperiosteal bone spavin, and the horse has perfect use of his hocks, and they are strong and broad in conformation, it is of little more consequence than a splint. It will be conceded, I hope, that every professional man having an opinion has a right to hold it, and that more especially if he can point to his practice as bearing out his opinion.

In my life time, I have recommended clients innumerable to purchase horses with subperiosteal bone spavins, but never unless the animal had a good conformation of hocks, and complete use of them in the acts of flexion and extension, and the results have been most satisfactory to all concerned; and I hesitate not to add that these animals will do more severe work and remain freer from lameness than horses with narrow hocks and wanting in action.

I am not advocating a race of horses with splints, curbs, and spavins, neither do I go the length of saying that diseases acquired during life are never hereditary, although I have given you the authority of Professor Weismann for asserting that they are never hereditary; but I do say that for one horse who is in possession of a splint, or a curb, or a spavin, as a direct inheritance from his progenitors, ninety-nine, in my opinion, become their possessors through environments; and I know that the soundest horse that ever lived, and from the soundest of progenitors, by environments may, for certain, become the victims of bone spavin. It is generally alleged that it is the pace that kills and lames the horse, but in my opinion the cause of lameness is more frequently due to an interference with the pace.

Thoroughbred horses are not remarkable for spavined hocks, in fact, they are rather the reverse as compared with other classes. As they are line bred, and as it is contended that bone spavins are hereditary, why are they so exempt? In my opinion the breeding has no place in the explanation. The environments explain the reason. Thoroughbreds go at the fastest pace, but they neither start nor finish at a great pace, and in their stride they are not suddenly brought to a standstill and made to wheel as on a pivot.

That sudden and powerful flexion and twisting of the hock joints, and not hereditary transmission, is the great cause of bone spavin, the circus clearly demonstrates. Every horseman frequenting the hippodrome or circus must have been struck with the number of lame animals, and if he has had an opportunity of examining the animals in their stalls he must have noted the large percentage of bone spavins. It is a fact beyond cavil that circus horses are prone to have spavin disease, and the reason is self evident. The more readily the horse obeys the command to wheel, to rear, and to change his paces, the more he is prized and his services called into requisition. See him as with lightning speed he courses round the circle, and mark with what suddenness he throws himself on his haunches, flexes his hocks, wheels his body as if on a pivot, and is off again in the opposite direction. Are you astonished that the hock joints under such treatment give way, and that articular spavin results. Why have recourse to heredity to explain the breakdown? Surely the environments are sufficient. Ask an engineer what would be the result of putting on the breaks and thus bringing a railway engine suddenly to a stand when going at full speed, and how often this could be done without irreparable injury to the machine.

Is bone spavin hereditary? I question that it is; but be that as it may, I am positive that it is an acquired and not congenital disease. In all my experience I have never seen a spavin on a new born foal, and as a breeder of horses, if the mare or stallion possesses the conformation and breadth of hock which I desire, and has that complete power of flexion and extension which every real horseman and judge admires, I will not discard the animal on account of the presence of the bony growth.

In the production of the diseases of the organs of locomotion I am a strong believer in the forces to which these parts are subjected, and not heredity or a latent power. To some minds the existence of a given disease in a sire or dam and in their progeny at any period of their life is a clear corroboration of its transmission from parent to offspring. For example, a stallion has a 'splint' a mare has a splint, and their progeny has a splint; accordingly the finding is splints are hereditary. Again, a stallion has a spavin, a mare has a spavin, and their progeny has a spavin; accordingly spavins are hereditary.

Now, in a similar way, we will apply this method of inductive reasoning to the very common disease in the human subject termed 'corn.' A man has a corn, a woman has a corn, and their offspring, male and female,

have corns, and accordingly corns in the human subject are hereditary. Do you believe in this? If not, why not? A corn is an acquired disease, and like most, if not all, acquired diseases it is the force of circumstances, the so-called environments which bring it into existence, and not heredity. The unshod colt may have a bruised heel, but never the corn of the shod animals, and it is as reasonable to affirm that a man without shoes might have a bruised foot, but never the corn of the shod subject.

That environments lead to alteration of the structure and functions of parts for good or bad is undeniable, and this too without any assistance in the shape of heredity. See the blacksmith's brawny arms, and feel the pressure of his horny hands, and behold in this an example of how environments intensify the powers of growth and reproduction for the execution of force, and the protection of tissue from injury and disease. See the strong open hoof of the unshod horse, and mark the size and elasticity of its frog, and all the result of pressure and freedom of movement. See the brittle contracted hoof of the shod horse, and mark well the diminution in size and want of elasticity of the frog, due to the shoe removing the frog from the pressure of the ground, limiting its freedom of movement, and producing atrophy or wasting just as the muscles of the arm of the smith would waste if placed in a sling. If we follow our subject up he acquires contracted heels, and in time the disease thrush (also said to be hereditary), and ultimately our subject is relegated to the list of disqualified and discarded sires; for, if used as a sire, the advocates of heredity allege he will propagate a race of horses with contracted feet, navicular arthritis, and diseased frogs.

Laminitis.

And now a remark or two on the disease laminitis. This is also one of the scheduled diseases, and certainly if urgency of symptoms, helplessness in progression, and pronounced structural changes within and without the hoof would warrant any acquired disease being ranked as hereditary, and its victim declared unsafe as a breeding sire, this is the disease of diseases. But what do we find is the result of using such animals as breeding sires. For thirty years and more I have watched these animals in innumerable cases, have known their history and the history of their progeny and their progeny's progeny, and circumstances have forced me to admit that laminitis as laminitis is rarely, if ever, hereditary. Many of our best breeding sires have fallen victims to this malady, some early in life, others far advanced; but even in the most pronounced cases the percentage of animals begot by them and who contracted laminitis was no greater after than before their sire had contracted the disease, and, moreover, no greater than in the case of other stallions who never had an attack of this malady.

And now, gentlemen, instead of offering further objections to the wholesale condemnation of horses affected with the so-called 'hereditary diseases' which, had time permitted, I would now pass to advocate the addition to that list of the nervous affections designated 'stringhalt' and 'chorea' or 'shivering.' Regarding these diseases, I have not the slightest hesitation in asserting that they are hereditary. It is probably too bad to bracket stringhalt with shivering, because many a good and lasting horse has been affected with stringhalt, but I never knew, and question if any other person ever knew, a shiverer do a good day's work and continue to do so for a length of time.

In its incipient form shivering is sometimes difficult to detect, and what the experienced eye may discover seems so trivial to the lay mind that he imagines nothing abnormal exists, or that much is being made of very little; but, alas! however slightly affected the animal may be, and however valuable and sound in all other respects, on no account should that stallion or mare be used for breeding purposes, for as certain as they are used they will transmit the nervous affection to their offspring.

Breeders may be allowed to do with their own stock what they feel inclined, but I would be one not only to the inclusion of shivering in the list of hereditary diseases, but also to the passing of an Act making it penal to travel a stallion for public service affected with this malady.

When the list of scheduled diseases was drawn up, I strongly recommended that stringhalt and shivering should be included, but it was not, a statement being made that a number of the most valuable hackneys were affected with stringhalt. No one can deny this, but the continuing to breed with stallions and mares so affected will only result in extending the affection.

I am not prepared to say that hackneys are free from, or affected with, shivering; but I do know that Shires and Clydesdales are so affected, and further that some of these affected animals are used for public service as breeding sires, and need I remark that the sooner all such animals are excluded from service the better it will be for the breeds and their owners.

(We are indebted to Mr. D. Young, of the *N.B.A.* for an early proof of the foregoing.)

EXTRACTS AND NOTES.

COMPOSITION OF GENUINE MILK.

The twenty-third annual report of the Local Government Board contains a reference to the results of a systematic investigation into the composition of genuine milk, made under the direction of Professor Bell, formerly principal of the Laboratory of the Commissioners of Inland Revenue.

The average composition of the milk of the 273 cows was as follows:—Total solids, 12·90; solids not fat, 8·91; fat, 3·99. The average composition of the mixed dairy milk was:—total solids, 12·96; solids not fat, 8·96; fat, 4·00. The total solids in the milk of individual cows was, however, found to range from 10·33 to 15·83 per cent., and it is observed, therefore, that if between those limits a high standard were fixed, the result would be to condemn much genuine milk, while, if a low standard were adopted, pure milk would be watered down to it.

Mr. Carter Bell, the public analyst for Cheshire, in referring to the undesirability of fixing a very low standard for milk, states that he has visited many farms in Cheshire and Lancashire, and has had hundreds of cows milked in his presence, and has rarely found an abnormal sample of milk. He is of the opinion that the farmers of Cheshire may feel perfectly safe that no prosecution could ever take place in the county for naturally poor milk, as it has been his custom for nearly 20 years to follow up poor cases of milk to their source, and only in one instance does he remember a case which did not come up to a very low standard. In this particular instance, the inspector was asked to obtain a sample direct from the cows, which sample corresponded with that first analysed. Dr. Carter Bell then visited the farm himself, and found five half starved cows, which were nothing more than animated bundles of bones. The cows were milked in his presence, and the analysis of the milk again corresponded with the former analysis. Dr. Carter Bell observes that it must be perfectly patent to all that the milk supply of the United Kingdom is not to be brought down to correspond with such samples as he has named. From the hundreds of samples he has himself seen taken from the cows, and subsequently analysed, he finds the average composition of the Cheshire milk to be:—total solids, 13·32; solids not fat, 9·31; fat, 4·01.—*Journal of Board of Agriculture.*

THE IMPORTATION OF FROZEN MILK.

With reference to the importation of frozen milk from Sweden and of fresh milk from Holland, it is believed that other countries are prepared to follow suit, and that this trade may at any moment assume enormous dimensions. Mr. Middleton states that he is an out-and-out free trader, and as a dairy farmer he is prepared to meet any competition from other countries on equal terms; but he contends that it is most unfair that he should carry on his business under all sorts of regulations from which his foreign rival is free, and that, in addition, the latter should receive the same preferential treatment from the railway companies, as regards the carriage of his milk, as he does for every other commodity in which he competes with the English farmer. If the safety of our own herds makes it necessary that cattle shall not be imported alive from most European countries, or shall be slaughtered at the port of landing, surely also the safety of the population of this country requires that the milk from these cattle shall not be imported without some safeguard as to its freedom from the germs of disease. Till some satisfactory proof of such freedom is given, the only efficient safeguard to the consumer seems to be that all such milk should be sterilized. It is suggested that no one should be allowed to sell foreign milk without being registered as a dealer in such, and that a notice to this effect should be affixed to his premises in a conspicuous position, also on all his vehicles and cans in which the milk is carried, or from which it is distributed; so that, at least, the consumer may know what he is buying, and may decide for himself whether he is prepared to run the risk.—*The Times.*

CONTAGIOUS DISEASES OF ANIMALS.

From the recently issued journal of the Board of Agriculture we take the following figures. They need no comment.

Quarters ended	Died from Swine Fever	Died or killed Glanders	Died or killed Rabies
March 1894	1862	382	38
„ 1895	1914	428	207

This journal is published quarterly and contains a lot of interesting and useful information. It may be obtained through any bookseller from Messrs. Eyre and Spottiswood, price 6d.

TUBERCULOSIS SERUM.

The tuberculosis serum of Dr. Paul Paquin, for which great things are claimed, is about to be used in Chicago by Dr. A. Lazorio, director of the Chicago Pasteur Institute.

The preparation, roughly described, is as follows:

A culture of the bacilli tuberculosis is made in veal or beef bouillon. The product is of concentrated fluid, highly toxic in its character. This is injected in the blood of a perfectly healthy horse. The animal is immediately thrown into a fever thereby, and the injection is repeated until the fever abates, and the injections no longer have any effect. The animal is then said to be "immunized."

This process requires from one to three months' time. When immunized, blood is drawn from the horse's neck, placed in a sterilized bottle and kept at a temperature of 40dgs. in a refrigerator. In the course of a month the constituents of the blood separate, so that the serum can be decanted.

The treatment is the hypodermic injection of a few drops of serum daily into the muscles of the patient's back.

Dr. Lazorio said he talked privately with Dr. Paquin's patients. Their testimony was that the fever disappeared, the nights sweats ceased, where there was hæmorrhage it stopped at once, the appetite returned, and, more remarkable than all, there was a rapid increase in weight in every patient.

Dr. Lazorio said the ascertained action of the serum was to heal the tissues and destroy the disease germs.—*Boston Herald.*

THE ROYAL COMMISSION ON TUBERCULOSIS IN CATTLE.

TO THE EDITOR OF THE "MANCHESTER COURIER."

Sir,—I observe reported in your parliamentary news of Friday last that, in reply to Mr. Lees Knowles, Mr. Shaw-Lefevre said the Royal Commission on Tuberculosis affecting cattle issued their report a few days ago after a prolonged inquiry. The evidence which had been taken during that time had not yet been issued, and the report made no recommendations. The Commission had arrived at various conclusions of fact as to the existence of tuberculosis in animals, and as to the possibility of its being communicated to consumers of meat and milk. These conclusions appeared to point to the expediency of an extension of the system of inspection of dairies, slaughterhouses, and butchers' shops, and, possibly, to the general establishment of public slaughterhouses. Now, sir, I am of opinion, from my own knowledge and experience, that the above system would not prove to be a remedy or successful in stopping this growing evil, unless the inspection was extended to the excessive insanitary conditions of shippons and places where animals are kept. It might be a protection to the public to suppress it, but would not prevent its breeding, which may be in a great measure due to the treatment of some cattle. From what I have seen, the evil mostly proceeds from close overcrowding in old, badly constructed, ill-ventilated, damp places, and the forcing system with milking cattle, along with other insanitary influences. If Mr. Shaw-Lefevre, or the Commission, would in Parliament recommend or advise, from the knowledge they have obtained, some remedy or means for the prevention of the breeding of this pernicious disease, and swine fever, I have no doubt tuberculosis, swine fever, anthrax and all other cattle plague diseases would soon disappear.—Yours, &c.

H. RICHMOND.

Lytham, May 18, 1895.

[Save us from our friends.—ED.]

Servian Pigs.

The entire prohibition of the export of swine from Servia, in consequence of the outbreak of swine fever in Hungary, has caused a far greater commotion amongst the Servian peasantry than the return of Queen Natalie, or any other of the stirring political events upon which the foreign correspondents comment so fully. "In the name of the profit pigs" is the Servian peasant's motto. He lives for pigs and by pigs; and the closing of the Austrian market, which is his only market, spells ruin to him.—*Newcastle Chronicle.*

THE PERMANENT CIVIL SERVICE.

The Home Secretary paid a well deserved tribute to the Civil Service of the country at the dinner over which he presided last Thursday night. If this country is proud, as she is and ought to be, of the Army and Navy, we may equally congratulate ourselves upon the character of what may perhaps be called the younger sister service. It is true, as Mr. Asquith observed, that while soldiers and sailors do their duty in the eyes of the world, the members of the Civil Service are called to do theirs mainly in the seclusion of dingy offices, unknown to the great mass of their fellow countrymen, and uncheered by public applause. Nobody is so well able to appreciate the ability and devotion of the permanent staff of our great public departments as the political chiefs—the transient and embarrassed phantoms, as Lord Beaconsfield put it--under whom they are placed from time to time. A Minister comes to his duties in many cases with only the slenderest equipment in the way of special knowledge, but he invariably finds in his office the man who can enlighten him upon every detail, and enable him to give an answer or to observe a discreet silence, as circumstances may require, to troublesome questioners in the House of Commons. It is well that the public should sometimes be reminded of what they really owe to the highly qualified and not too highly paid gentlemen in the permanent service of the country, without whose assistance the ablest Minister would be helpless. That we have such a body of trustworthy public servants is due mainly to the fact that their tenure of office is unaffected by political changes. The permanence of officials does tend, in some degree, no doubt, to sterotype methods of procedure, and to establish the routine which is called, by way of depreciation, Red Tape. But the advantages of the system altogether outweigh its occasional drawbacks.—*The Globe.*

POISONING OF CATTLE BY NITRATE OF SODA.

At the time of year when nitrate of soda is being used as top-dressing a word of warning as to its effects upon live stock may not be out of place. Two years ago a number of cattle died rather suddenly on a farm in South Lincolnshire, and an inquiry into the circumstances of the case left no room for doubt that death arose from the eating of nitrate of soda which the animals obtained from bags which had been used in conveying this fertilizer into the field, and had afterwards been left lying about. More recently a case has occurred on a farm in Massachusetts in which 11 cows out of a herd of 15 died as a result of having had given to them nitrate of soda in mistake for common salt (chloride of sodium). The 15 cows had been out at grass all day, and were driven to the stalls in the evening, when an attendant gave to all except two what he supposed to be common salt, thoroughly mixed with a small quantity of wheat bran. Apparently, all the animals ate heartily. Two hours later the cows attracted notice by the noise they were making, and when examined they were found to be uneasy and evidently in pain, and several died within an hour or two. The only skilled advice obtainable was that of a medical practitioner who, thinking the case was one of arsenic poisoning, prescribed accordingly, but before morning eleven of the cows were dead. An examination of samples of material collected from the mangers, from a pail containing a mixture of bran and salt that had been taken from the mangers, and from various other places, revealed the presence of large quantities of nitrate of soda, but no common salt. An analysis of the contents of the stomach failed to reveal any trace of arsenic, lead, or other mineral poison.

Nearly 20 years ago somewhat similar cases were recorded in the *Archives Vétérinaires.* A horse had drunk freely of a solution of nitrate of soda and exhibited many of the symptoms that were subsequently noticed in the Massachusetts cattle; the administration of strong infusions of coffee and alcohol and irritant clysters relieved the animal, which in a few days completely recovered. In another case four bags of nitrate of soda had been placed at equal distances on a grass field and allowed to remain some five hours before being applied. Meanwhile, some of the nitrate had become washed from the bags upon the ground by a fall of rain. Three days later cows were turned into the pasture and obtained the salt by licking it from the herbage in the vacinity of which the bags had stood. They showed symptoms of poisoning, but ultimately recovered. One other case worth noticing is that in which 200 bags which had contained nitrate of soda were washed in large tubs of water close to which the cattle passed on their way to the pasture. A few hours afterwards many of the cows were seen to be ill, and within eight hours two of them had died. These turned out to be the first two that had left the stalls, and consequently had time to drink more of the solution than the others. These cases all serve to show that care should be exercised upon stock farms in the handling of nitrate of soda, and there is no better period of the year than the present for enforcing the lesson.—*The Times.*

THE GENERAL MEDICAL COUNCIL.

Thursday, May 30th, and Friday 31st

SIR RICHARD QUAIN, Bart., in the Chair.

On the Council resuming, the first hour was spent in private consultation with the legal advisers.

CASE OF MR. ROBERT FITZROY BENHAM AND THE JUBILEE HOSPITAL.

Mr. Robert Fitzroy Benham, M.R.C.S. Eng., 1881, appeared with counsel to answer certain charges and allegations formulated against him by the Council's solicitor, on the complaint of the Medical Defence Union.

A considerable amount of evidence was heard both for the complainant and the defendant, after which the Council deliberated in private.

The President, addressing Mr. Benham, said: The Council have resolved that you have not been guilty of the infamous conduct charged against you.

This finished the business, and the Council adjourned.

Saturday, June 1st.

COST OF LAST CASE.

On resuming, the president informed the Council that the cost to the Council of hearing the charges connected with the last case amounted to some £600.

CASE OF GEORGE FRANCIS MCCARTHY.

This case was brought before the Council at the instance of Mr. Braxton Hicks, Coroner for the South Division of London. The charge against Mr. McCarthy was: "That he systematically acted as cover to an unqualified person named Francis Morley Coppin, and by acting as cover to him, and by allowing him to use his (McCarthy's) name and qualifications, and by his presence and assistance, enabled the said Francis Morley Coppin to practice and attend patients as if he were a duly qualified registered practitioner."

The defendant appeared, with Mr. Schultess Young as counsel.

Mr. Braxton Hicks alleged that Mr. McCarthy had acted as cover to the person named in the charge, and that this person had in his absence on two occasions affixed Mr. McCarthy's name to certificates of death. These certificates were produced.

After hearing the evidence the Council deliberated *in camera*, and, on strangers being readmitted.

The President said that, in the opinion of the Council, the offence charged had been committed; but that the Council had postponed proceedings further in the matter. The defendant would be liable to be called upon by the Council at their meeting in November, and to produce evidence as to the manner in which his professional duties had been conducted in the interval.

Monday, June 3rd.

Sir RICHARD QUAIN, Bart., in the Chair.

THE CASE OF SAMUEL FREDERICK MURPHY.

The Council proceeded to the adjourned discussion of this case, adjourned from Saturday, in the absence of Mr. Murphy who did not appear.

The charge was "that he had acted and did act as cover to an unqualified person named Thomas Millerchip, who resided and carried on a medical practice at 4, Swanswell Place, Coventry, and by his presence and the aid of his name and professional qualifications enabled the said unqualified person to carry on, and assisted him in carrying on, a medical practice as if he were duly qualified."

After hearing Dr. Bateman's statement the Council, after deliberating in private, decided to instruct the Registrar to erase Mr. Murphy's name from the *Medical Register*.

The President informed the Council that the expenses connected with the penal cases they had heard amounted to £700. The question in his mind was whether this preposterous expense could not be diminished.—*British Medical Journal, June 8th* 1895.

HYDROPHOBIA IN YORKSHIRE.

Rabies in dogs still prevails in its old haunts in Lancashire and Yorkshire, though it is present in other parts of England and also in Ireland. It is no wonder, therefore, that cases of persons who have been wounded by really rabied or suspected dogs, and who have been hurried off to Paris to undergo preventive inoculation, are frequently recorded; while a death from mad dog-bite is now and again brought under our notice. The most recent of these fatal accidents occurred quite lately, and according to the report received it presents some rather unusual, though not by any means novel, and instructive features; and it is also the more painfully noteworthy from the fact that the victim was brother of Mr. Nunneley, senior surgeon of the Leeds Infirmary. From the evidence given at the coroner's inquest, held at that institution on May 20th, it seems that the deceased was bitten or scratched by a dog towards the end of last December, though the injury was so slight that no importance was attached to it. Early in January the animal was ill, and on being examined by a veterinary surgeon was found to be "out of sorts," and it is stated that no symptoms of rabies were present, yet for some reason or other it was considered advisable to have it destroyed, perhaps because it had the reputation of being naturally savage, though this is not, we believe, a characteristic of its breed—the dachshund. Mr. Nunneley (the victim) cut one of his hands with a piece of glass in March, but the wound was neglected and tedious in healing, and lately there was some pain in the cicatrix remaining. Two days before his death he complained to his brother of being unwell, the chief symptoms being slight difficulty in breathing and swallowing; on the following day he was much worse, and died in the evening. The medical witnesses were of opinion, from the symptoms, that death was due to hydrophobia, though they considered the latent period between the infliction of the injury and the manifestation of the malady to be much longer than is usually the case. The veterinary surgeon stated that the dog, though it showed no symptoms of rabies, was savage, and a necropsy revealed no indications of that disease. The deceased was inoculated in Headingley, and on May 20th a dog suffering from rabies was brought from that place to the surgery of this veterinary surgeon in Leeds; it was said to have bitten a person some time ago. The points to be noted in the above painful case are the very trifling nature of the injury by which the rabific virus found admission to the circulation, the apparent freedom of the dog from rabies, and the rapidity with which death took place after the symptoms set in. Had rabies been suspected in the dog it should have been kept alive until its condition was ascertained—adopting all possible precautions against its doing damage, of course; and a very brief time would have settled the question, as rabid dogs live only a few days after the symptoms are developed. The prolonged latency is, of course, another matter to be noticed, though it is not at all infrequent, and many instances are to be found in which it has been much more protracted. It is greatly to be desired that more energetic and effective measures should be taken to suppress this most distressing and awe-inspiring disease of man and beast in the United Kingdom; for with the present measures, as has been so often insisted upon, we shall never succeed in getting rid of it, and such cases as the one now noticed will inevitably occur. Human life may not, in the opinion of some people, be of so much value pecuniarily as that of animals, but here we have both at stake, and this might induce the Board of Agriculture to have recourse to similar measures to those adopted for the stamping out of, say, the contagious pleuro-pneumonia of cattle, a disease that could not be transmitted to mankind, and yet was got rid of, though at an enormous expense in money and great public inconvenience. —*The Lancet.*

Mr. Clement Stephenson at the R.A.S. Show.

At the Royal Agricultural Society Show at Darlington, Mr. Clement Stephenson was awarded First Prize in Class 99 for Aberdeen Angus, bull calf, (Lightheart, calved in 1894); Second in Class 101, heifer in milk (Radiant, calved in 1892); and First in Class 103 for heifer (Jipsey of Benton, calved in 1894).

Imprisoned for Exposing Bad Meat.

At the Salford Police Court, before Mr. J. Makinson, Stipendiary, Charles E. Clarke, butcher, 104, Chapel Street, was summoned at the instance of the health authorities of the Corporation for having in his possession and exposing for sale a large quantity of beef, mutton, &c. which was unfit for human food. Mr. A. Holmes, Deputy Town Clerk, prosecuted, and Mr. Fordham, *veterinary and meat inspector for the borough*, said he visited the defendant's shop on the 16th inst. and found a large number of pieces of bad meat, all of which were exposed for sale, except ten pieces which were lying on a board in the rear of the shop and partly covered with paper. The meat was seized and destroyed.—Dr. Paget, medical officer for the borough, said he had examined the meat and found it was totally unfit for food. Some of it was quite green and putrid, and had it been sold and eaten might have caused an epidemic of disease.—Defendant said the bulk of the meat was intended for the

"bone man," and he should not have sold it.—The Stipendiary said this was one of the worst cases that had ever come before him, and he could not impose a fine. The defendant would be sent to prison for six weeks.

HYDROPHOBIA ALLEGED TO FOLLOW THE BITE OF A HEALTHY DOG.

Dr. John Haddon (Hawick, N.B.) writes: In *The British Medical Journal* of May 25th, under the above heading, a paragraph appeared animadverting upon the practitioner at Cheadle who had given a juror to understand that hydrophobia might be caused by the bite of a healthy dog. The writer considers that such a statement shows a distressing lack of the "commonest known facts about rabies."

Now, there is a good deal to be said for the Cheadle practitioner's opinion that something depends upon the constitution of the patient as well as upon the state of the dog, in support of which I would like to point out that:

1. Only about 10 per cent. of those bitten by dogs known to be rabid take hydrophobia.

2. I was asked to see a case of undoubted hydrophobia, which followed the bite of a dog, the patient's companion, which was not rabid, or rather, perhaps, I should say, which was not known to be rabid at the time it bit its master, or three weeks afterwards, when it was destroyed because it was supposed to have caused its master's illness.

3. I had a patient, a boy, bitten by a dog not supposed to be mad, but in perfect health, as it continued to be, who six weeks after the bite suffered pain in the part bitten, and caused no small anxiety to me as well as to his friends. The pain, however, passed off without any other symptoms.

However much our knowledge of rabies and hydrophobia may have advanced within recent years, few will believe that it is yet perfect, or that there are not facts which our present theory will not explain.

* * Dr. Haddon, in furnishing support "to the Cheadle practitioner's opinion," offers three points for consideration in connection with the above-mentioned "opinion" that hydrophobia might follow the bite of a healthy dog. The first point consists of an erroneous estimate of the percentage of deaths among those bitten by undoubtedly rabid dogs. The real figure—namely, 15 per cent.—however has equally no bearing on the question. As to his second point, it is clear that the patient was not infected by the bite from his own dog, as that would make the incubation period for subcutaneous infection less than three weeks, whereas five to six weeks is the shortest yet recorded. This case, therefore, has no weight in the present issue. Dr. Haddon's third point is vitiated by the fact that the boy bitten had no hydrophobia at all, no more in fact than his dog. Under these circumstances it appears to be useless to discuss the matter further.—*Brit. Med. Journal.*

Fees for Life Insurance Examinations.

Under this heading we find the following paragraph in the "Answers to correspondents" in *The British Medical Journal*:—

"S.B.M.—We advise our correspondent to adhere to his refusal. It cannot be to the credit and dignity of the profession that any member of it should undertake to make an examination for life assurance for the sum of eighteen pence.

MR. HERBERT SPENCER ON THE EVOLUTION OF THE MEDICAL PROFESSION.

Continuing his studies of professional institutions in the *Contemporary Review*, Mr. Herbert Spencer this month traces the evolution of the physician and surgeon. He points out that in early societies the two functions of priest and doctor are normally united in the same person, the origin of the union lying in the fact that the primitive priest and the primitive medicine man both deal with supposed supernatural beings. Diseases are believed to be caused by indwelling demons who have either to be driven out by making the body, figuratively speaking, to hot to hold them, or to be ejected by superior spirits whose aid is invoked. Mr. Spencer finds survivals of this primitive etiology in the verdict "Died by the visitation of God," and in the offering of prayers for the sick. In connection with this subject he takes occasion to recall the fact that when, some years ago, it was proposed to divide hospital patients into two groups, for one of which prayers were to be offered, and for the other not, the proposal was "resented with indignation," and he asserts that the refusal to accept this challenge was due to the fear of bringing the belief in the "curative effect of prayer" to the test of facts. Sir Henry Thompson, if we remember aright, offered to try the experiment in his wards. Mr. Spencer apparently sees nothing offensive to the religious mind in such a proposal, but he would probably "resent with indignation" an invitation to discuss the nature of the Unconditioned with a Sunday orator in Hyde Park. Moreover, even a philosopher, if he had the saving sense of humour, would admit that hospital authorities might not unreasonably object to the institution for which they are responsible being made the scene of an experiment calculated to give the greatest offence to many of their subscribers. Mr. Spencer traces the idea, which still prevails among the uncultured, that a medicine is efficacious in proportion to its nastiness, to the belief in the diabolical theory of disease causation, and the methods used by the priestly mediciners to drive forth the fiend responsible for the trouble.

The separation of the medical from the sacerdotal function was gradually effected by the growth of civilisation. The practice of medicine, however, continued to be largely in the hands of ecclesiastics till the fifteenth century, both in France and in England. It was only when a papal Bull, promulgated in 1452, gave the physicians of the University of Paris permission to marry that the clerical practice of medicine began to decline.

In this country the practice of medicine was still to some extent in the hands of the clergy in 1456. Mr. Spencer adds that "it is alleged that down to the early part of our own century there remained with the Archbishop of Canterbury a latent power of granting medical diplomas," evidently being unaware that the power in question was only taken from the Archbishop by the Medical Act, and that a holder of the Lambeth M.D. died only a few months ago.

The division of professors of the healing art into physicians and surgeons Mr. Spencer holds to be not the result of differentiation, but the maintenance of a distinction which asserted itself at the outset; the physician's province was the cure of evils inflicted by supernatural power, while the surgeon had to deal with injuries caused by human beings, by beasts, and by inanimate things.

The separation between the two branches was accentuated in Christian times by the canon law forbidding ecclesiastics to shed blood; hence clerical practitioners of medicine had to call in the aid of secular hands to perform any operations which were necessary. It was

further increased—though this point seems to have escaped Mr. Spencer—by the feudal notion as to the degrading nature of anything savouring of handicraft; hence physicians claimed to be beings of a superior order to surgeons, whom they affected to look upon as mere artisans. The supposed greater dignity of the physician was for centuries more or less meekly accepted by the surgeons as well as by the public, and it can hardly be said to be altogether extinct even now. At the funeral of the Duke of Wellington, in 1852, physicians were admitted to St. Paul's, but surgeons were excluded. Of differentiation within the profession itself, Mr. Spencer of course finds abundant evidence in the specialisation which had already reached a high degree among the ancients, and which now threatens to end in a portioning out of the body into minute allotments, each with its own cultivators.

In conformity with the normal order of evolution, integration has accompanied these differentiations. Schools are established, unions and associations are formed, and medical journals are founded—all to safeguard the rights and promote the interests of the profession. From incorporation of authorised practitioners springs jealousy of the unincorporated. "Like the religious priesthood, the priesthood of medicine persecutes heretics and those who are without diplomas." Such a sentence, especially taken in conjunction with another passage in which he implies that the success of bonesetters is often greater than that of qualified surgeons, might lead a hasty reader to suppose that Mr. Spencer has a certain sympathy with quacks. The truth is simply that he looks both at licensed and unlicensed practitioners with the impartiality and detachment of the philosopher.—*Brit. Med. Journal.*

A Veterinary Surgeon Claims Exemption from Jury Service.

Some amusement was caused by the application of Mr. Baker, of Wimborne, to be excused from service on the common jury on the ground that he was a veterinary surgeon and having no partner or assistant, there was no one to attend to his "cases" during his absence. Mr. Baker made his application. The Judge heard him in silence, which the applicant seemed to think implied consent, and he left the court, but was brought back by an officer and informed by his Lordship that he could not admit his plea as a sufficient excuse from exemption from service. Did Mr. Baker mean that he was never to serve on a jury? Did he never leave his home? He (the Judge) could not make a precedent by allowing him to go, or he should have it set up as a matter of law that every veterinary surgeon was exempt from service. If, however, he found later in the day that he did not require his attendance he would let him go.—*The Bridport News.*

Personal.

Appointments.

Mr. Duncan Cumming, M.R.C.V.S., who recently graduated at Dick's Royal Veterinary College, has been appointed manager of the large practice of the late Ben. Bisset, M.R.C.V.S. Previous to entering College Mr. Cumming received a practical training in forge work from Mr. John Grassick, Donside Towie. At College he took a high place in his classes all round, and during his course he was fortunate in becoming a pupil of Mr. Rutherford, F.R.C.V.S., Edinburgh, for a period of two years. To acquire a knowledge of country work he practiced under Mr. Sievewright, V.S., Tarland. He has thus gained an insight which should stand him in good stead in following the footsteps of the late Mr. Bisset.

Mr. Charlel Porter, of Ely, has been appointed inspector of Markets at Ely at a salary of 2s. 6d. per week.

Mr. Robert William Knowles, of Wisbech, inspector of Markets at Wisbech at a salary of 4s. per week.

The following were appointed veterinary inspectors in the several Petty Sessions of the Isle:—Ely, Mr. Charles Porter; Whittlesey, Mr. F. F. Fuller; Wisbech, Mr. Robert W. Knowles; March, Messrs. F. Reynolds and F. G. Reynolds; Chatteris, Messrs. F. Reynolds and F. G. Raynolds. The March district contains March, Doddington, and Wimblington; Chatteris district contains Chatteris, Benwich, Manes, Welches Dam.

ARMY VETERINARY DEPARTMENT.

The Annual Dinner of the Army Veterinary Department was held at the Hotel Métropole on the 21st inst., when the following officers were present:—Vet.-Col. J. D. Lambert, C.B., Director General; Vet.-Lieut. Cols. J. H. B. Hallen, C.J.E., G. A. Oliphant, W. B. Walters, C.B., W. A. Russell, H. Thompson; Vet.-Majors J. Kettle, J. Reilly, B. L. Glover, J. C. Dwyer, R. Rowe, G. D. Whitfield, J. K. Grainger, J. Burton, S. Longhurst; Vet.-Capts. T. Flintoff, R. H. Ringe, R. Pringle, T. A. Killick, J. B. Savage, K. Lees, E. H. Kelly, L. J. Blenkinsop, F. Joslen, E. R. C. Butler, G. C. O. Fowler, D. J. Barry, E. J. Lawson; Vet.-Lieuts. F. C. Stratton, E. J. P. Barry, W. E. Russell, F. U. Carr, and F. W. Hunt; Vet.-Surgeons. 1st class, H. Dawson, and A. A. Jones.

An exchange has been sanctioned between Captain Day, 9th Lancers, and Captain Moore, 12th Lancers. —*United Service Gazette.*

Extract from *London Gazette*, of 25th June, 1895.

The following Vet.-Captains to be Vet.-Majors:—J. Mills, and T. Flintoff, 2nd Life Guards.

Vet.-Lieut. W. B. Edwards arrived at Aldershot on the 24th instant for duty at that station.

Principal Vet.-Surg. J. Collins.—Principal Vet.-Surg. J. Collins, Retired List, Army Veterinary Department, died at The Beacon, Chevening, Kent, on the 19th inst., aged 64 years. He joined the Army June 21, 1854, as veterinary surgeon of the Inniskilling Dragoons; became first class July 29, 1862; staff veterinary surgeon Feb. 22, 1868; principal veterinary surgeon June 28, 1876; and retired June 28, 1883. He served in the Crimean campaign of 1854-55 with the Inniskilling Dragoons, including the battles of Balaclava and Inkerman, and siege and fall of Sebastopol (medal with three clasps and Turkish medal).

THE LATE COL. PHILLIPS:—A correspondent writes: "Great will be the regret of all his brother officers who knew him at the death at a comparatively early age—only 44—of Vet.-Lieut. Col. C. Phillips, P.V.S., in Ireland. Wherever he went Vet.-Lieut. Col. Phillips made friends. He was thoroughly straight in all his dealings, and full of kindness and consideration. A capable veterinary surgeon, an earnest good soldier, and a staunch friend, he was as much appreciated by those outside the department as in it, and sympathy is felt for Vet.-Col. Drummond Lambert in the loss of one of his ablest, best, and most popular senior officers."—*Army and Navy Gazette.*

OBITUARY.

WILLIAM ROBERT BULL, M.R.C.V.S.,
Trusley Etwall, Derby.
Graduated, London, July, 1883.

JAMES COLLINS, F.R.C.V.S.
Graduated 1852, Edinburgh, December, 1867.

WILLIAM T. MOYLE, Praze Crowan, Cornwall.

COMMUNICATIONS, BOOKS AND PAPERS RECEIVED—Messrs. G. A. Thompson, W. C. Prudames, D. M. Williams. *American Veterinary Review.*

Veterinary Societies—Addresses.

Alterations for this list must be duly notified by the Secretaries

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Vice-Pres: Messrs. N. D. Dhakmarwalla, Esq., G.B.V.C. V. E. Vakharia, Esq., G.B.V.C. S. G. Haji, Esq. S. N. Ranina, Esq., G.B.V.C.
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93 Huddlestone-rd. Tufnell Park, N.
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EASTERN COUNTIES V.M.A.
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Second Tuesday in August, November

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END OF VOL. VII.